

# AVIATION

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SEPTEMBER 15, 1924

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Vought UO1 spotting plane being lowered from the U.S.S. Richmond to search for Lieut. Wade's plane

Photo Inter-American

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## SPECIAL FEATURES

AIR POLICY SUGGESTIONS

WORLD FLIERS REACH NEW YORK

PLANS FOR THE SCHNEIDER CUP RACE

THE DAYTON RACES AND GOVERNING RULES

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# WRIGHT AIRCRAFT AND ENGINES

L. D. GARRETT, PRESIDENT  
L. D. WEAVER, TREASURER  
GEORGE NEWHORN, SECRETARY-GENERAL

# AVIATION

VOL. XVII

SEPTEMBER 15, 1924

LAWRENCE A. CLARK

VERNON E. CLARK  
EDWARD P. WARREN  
RALPH H. UPDEGRAD  
EDWARD T. ALLAN  
CONTRIBUTING EDITORS

ADVERTISING

No. 12

## A Double Loss

WE HAVE a great pilot or test to fly through an accident or it is lamented by all who are doing their part to save it. The passing of Louis Alexander Potez from the ranks of our foremost military pilots will be regarded as one of the sacrifices, heroic in time of peace as well as in war, as seem to be an unavoidable part of aeronautical development. To the long list of super-pilots who have given up the cause of the cause of the bravest and most skillful of our POST-WAR AVIATORS

What our hearts are troubled by the personal loss, the destruction of the fastest airplane in the world, the one that has set the imagination by its wonderful speed performance, will also cause general regret. With its twin Curtiss, Lucy has transformed into a seaplane, it has run without a single instance of the class of racing plane that has brought the laurel of distinction to American aviation. Besides, too, will it be that there is little likelihood of the Army or Navy taking due to build strength for racing purposes in the future. With appropriations being curtailed, it will take great courage to spend the large amounts required for racing airplanes. However, the Navy has decided to conduct its speed efforts in race water flying, there will not be the incentive which come from inter-service competition. The decision of the Air Mail to conduct itself strictly to the business of carrying the mails to due another loss to aerial competition.

The effect of all this on the Dayton races will also be unfortunate. With the only airplane capable of approaching the world's speed record destroyed and foreign entries not entering the Navy withdrawal and the for Med racing races, the mail will be entirely an Army Air Service contest and a continuation of aircraft exhibition.

The sponsorship of the Navy is giving the Army Air Service one of its world record signs should be realized at this time, for such acts of mutual helpfulness toward the general welfare of air sports are in line with real efficiency.

## Three Fine Flights

THIS trip of Major Spatz and his pursuit group from Brazil to Washington, New York and return in three days is the kind of flying that represents the country with the possibilities of aerial mobilization. The speed of one 150 miles per hour made by the Navy Curtiss Behaner Cap entry shows to what progress we have made over water. Finally, the flight of Lieutenant Mafet which covered the distance from Rio to New York in fifty-eight minutes will appeal to the interest of the traveling public.

Comes, as they did, just before the arrival of the Round the World Flyers, the country has been given demonstrations of aerial acrobatics which should have their reward in greater public confidence and support.

## Airplane Type Names

OCASSIONALLY AVIATORS has expressed the hope that our aircraft manufacturers would see the great advantages of giving their planes distinctive type names. The case with which the public remembers such names as Balsachok, Douglas World Cruiser, or Martin Bomber, should show the manufacturers the distinct advantages of designating aircraft types by a name instead of by a series of letters and numbers. The custom of adopting the designator's line print designation has made it almost impossible to handle serials publicly so that it means nothing concrete to the public.

Alfred, the name of the manufacturer is always associated with his products. The Vulture, Viking, Vulture, Vandy, Bristol Blenheim, Supermarine Seal, Farnese Goliath, Supermarine Seal and Avro Aldershot are examples of type names that could well be followed by American practice. The Albatross Biplane system is, of course, extremely attractive, and if it could be adopted here it would be a great help to the popular news writer as well as the aeronautical editor.

A start in the right direction was made with the Oracle, Eagle, Petrel and Seagull, but these were occasional types. Suppose the PWS were known as the Corvo, Challenger and so had names Vought, Lockheed, Loening, Lightnings, Douglas Defenders, Avroian Armies, Boeing Bear Cats, or Wright Warhorses, how easily the public would distinguish the types and remember them. Instead we have C8, W30, P4, V18SP, J28H, T2M-2M and DH-4B. Such designations are so numerous that they should be confined to the stage. Engines, too, are distinguished by alphabetical symbols that only confuse.

If the Air Service would join with the manufacturers in seeking a remedy for this obviously unfortunate tendency that is being given the public, a great service could be rendered to the whole art. To have aircraft referred to as "Army Pursuit and Ships" is, of course, meaningless except for the military classification. Then, too, the manufacturers deserve to have the reward that comes from public appreciation of excellence of design and performance. The service, too, wants the public to have an appreciation of the widely different types that have to be constructed for their requirements. Publicity is as essential in Air Service service as it is in any other governmental activity. To make this easy for the public to absorb would be a great step forward.

## Welcome Home

THE Round the World Flyers are home. The welcome of the nation is as less enthusiastic than the apparent joy of the pilots themselves. To have served on the tablets of history an enduring achievement is a great fact, but the test of the heartbeats can never be learned by glory, no matter how great. The cheeks of the welcoming throng are resounding across the continent. Behind it is the more substantial echo—Well Done, Brave Pilots.



over four places, have been put up for this competition. It is further stipulated that the airplanes entered in this race must have a speed of greater than 80 m.p.h. in order to claim the award of the trophy. The cost of the race is to be borne by the contestants, and the cost of ground work \$2,000.00 per load, a restriction on wing area will be placed on the regulations which state that the contest is only open to airplanes having a wing area of greater than 800 sq. ft.

In order not to enclose these large ships during the race for the same reason that contestants were permitted at the Flying meet, a contest load has been stipulated as follows: The crew must weigh 340 lbs. Each place must carry a contest load which shall be determined from the following formula, using as a base the enter each displacement for the 400 hp. Liberty Engine.

480

× cubic inch displacement of engine or engines used

1649

× 2 = "Contest Load."

This load shall consist of shot ballast, which will be furnished the contestants. Fire extinguishers and paracord may be utilized, but fixed instruments are excluded. To facilitate the carrying of the load, the contestants are to be encouraged to stand on. It is further stated that both radios, guns and motors may be removed. This race is for a distance of 150 m., ten laps of a 15 m. course, and will be started at 12:30 p.m. on Friday, Oct. 3.

In order to prevent the handing of these large ships at the turns the planes will be set away in a flying start, at 30 sec. intervals.

#### Detroit News Air Mail Trophy

The flight plane estimators will have an opportunity to display their skill and daring on Friday, Oct. 6, at the Detroit News Air Mail Trophy competition, which will start at 2:45 p.m., Friday, Oct. 6. This race carries with it a beautiful trophy and \$1,250 in prizes, distributed over three places. The contest is restricted to civilian pilots only.

Airplanes having engines of 80 cu. in. piston displacement, at least, are eligible in this race. Two contestants will be a distance of 150 m., for a total of 4.5 m. course and the planes will be set away from a standing start.

When the announcement of the cubic inch displacement was made some time ago it brought forth a considerable amount of criticism from the champions of lower cubic inch engines. Here are we again, however, the development of the plane to its best. It is up to the flying men to decide. The next question arises as to when we build these planes when we obtain the engines? The average flight plane constructor, whom we are trying to encourage, does not have funds available to purchase expensive low horsepower engines which are now more or less available on the European market. We have just learned the news of the new 100 hp. Hispano-Suiza engine, and the racing engines which have been available at the last meets in obtain delivery, making it necessary in most cases, for them, in order to get into the race, to purchase engines in this country. This seems to have us more fully convinced that the engines for this race must be obtained upon interchange, either used or unused. It was found necessary to use the following formula:

#### As Added Light Plane Race

In order to further encourage the light plane builder and to give him a chance or a try at an efficiency contest, Detroit No 10 will be held on Oct. 6, at the same place and at the same time as the race described above. The trophy of the same class as those entered in Detroit No 5 will be started at 11:45 a.m. on Friday, Oct. 6. This race, as at present, has been divided into two parts for speed and efficiency. The speed portion of the race carries prizes of \$6,250 and the efficiency prizes total \$1,500. The Dayton Cup, which is a beautiful trophy for the speed portion of the race, and the Elgin Cup, for the efficiency portion, will be awarded to the winners of the race. The trophy for the efficiency portion will be awarded to the winner of the trophy for the efficiency section of this meet.

This race is also open to airplanes having engines of 40 cu. in. or less. Planes must carry a total load of 150 lb., which shall consist of pilot and ballast if necessary. The race will be for 90 m., ten laps around a five mile course. The contestants will be limited to 150 m. in the race, the exception that if planes will be 160 m. in. In order to get into the race, the contestants must have engines which are not available to purchase engines which, at this time, could hardly be had upon interchange, either used or unused. It was found necessary to use the following formula:

#### Speed of completing race in cubic

Gasoline consumed.

In this case a plane that is determining the figure of merit the planes are given credit for the speed made in the race, but are penalized for the gasoline actually consumed. The actual credit of this contest prestige, some critics feel.

However, it is believed that they have been made in such manner that there will be no argument as to the actual performance in this race. The formula is as follows:

#### Speed of the race and the actual gasoline required to refill the tank after the race will be carefully measured.

In case some of the planes use air pressure feed, arrangements will be made to remove a definite quantity of the air after the tank has been filled and the contestants will be given credit at an altitude of 500 ft.

Flight plane racing in this race will be set away from landing strip end, for reasons of safety, the group to be started will not exceed six planes each.

the third pylon, which is the balloon, and around it at the end of the basket.

One can be strictly a speed contest. True, the prizes are awarded for the airplane covering the course in the least time, but the speed of the plane is not the only factor of power to be able to finish in the 500 ft. level in a distance of two miles. If they are unable to do that, then they may fly at altitude before passing the balloon. This creates a loss of time and therefore reduction in speed. Secondly, when these airplanes are flying at these maximum speeds angles of attack and sideslip are increased, which, and they are not stable and provided with adequate surfaces, may be responsible for successfully maneuvering these planes during the clouds and particularly at the instant they are required to round the balloon. The results of this race will be watched with great interest, and it is expected that much will be learned as to the construction of airplanes of this type.

#### Detroit News Air Mail Trophy

Event No. 9, which is a race for Air Mail airplanes and Mail pilot for the Detroit News Air Mail Trophy, is of little interest. The contest will be started at 9:30 a.m. Saturday, Oct. 6.

The calculation of commercial aircraft can be brought to the notice of the layman in no more fitting manner than being done each day and night by our Air Mail carriers. Our men are out to those who have passed on the work, and it is entirely fitting that this event should be placed in the program. The current price of \$4,000, distributed over an engine and pilot, with a total weight of 360 lbs., is 100-12 m.p.h. We are up to a speed of 100 m.p.h. in a commercial aircraft, not exceeding 75 m.p.h. It is further provided that they shall have a factor of safety for the wings as follows:

Wings

The high windless conditions with center of pressure at its most forward position.

Low windless condition with center of pressure of position corresponding to maximum ground speed

4. Reserve load conditions

Flight

5. Flying and landing loads

The strength values for wood as given by the Forest Products Laboratory, for 10 per cent moisture content and the factor of safety of stress analysis shall be used in making all strength calculations. Further interesting provisions of the contest will be noted.

"Sufficient loadings must be provided for the Detroit contest plus 50 per cent. This shall be based upon engine consumption as determined from a proposed dynamometer test and strength calculations of those required to complete the race. The results of the contest will be based on this."

It is very easy to be impressed by a powerfully drawn and mounted aircraft saving the fuel consumption of the engine at the maximum power, to be used in the race.

All planes entered in this race must be so designed with proper exhaust, propellers, stability, deflection, ventilation, or other aerodynamic characteristics, which, in the opinion of the Committee, will prevent induced losses from resulting in the damage of the pilot and add a few miles to the race speed, and thereby increase the high speed. In this country, flying restrictions on the road are also acknowledged.

Our high speed planes are without regard on the road, but the low speed planes which will be of considerable benefit to us are on road.

The development of these high speed planes, while restricted in some respects, will make it possible for this country to put in the air parent type airplanes which have not been equal in the world. We cannot overlook the actual necessity of the road in the life of man. It is often been said that competition in the life of man is the road to success. We must learn that when our competition and government are trying their ingenuity and skill to the utmost in designing, building and flying airplanes which will give the maximum performance under trying conditions.

In this regard, it is required that new shapes could not be constructed to the application of the existing laws, which we learned last year. Prediction of what one will be is another matter of guess. New planes have developed at the same rate that they have developed for the past four years we may be safe in predicting that the year's Pulitzer Prize will be set at a speed of 250 m.p.h. On the same basis the writer predicted a speed of 244.5 m.p.h. for the 1925 contest which was actually set at an average speed of 241.48 m.p.h.

#### John L. Mitchell Trophy

In memory of his brother who was killed during the World War, Brig. Gen. Wm. L. Mitchell, and John L. Mitchell Trophy in competition at Detroit in 1925, a prize for pilots of the first pursuit group flying straight pursuit type ships. This contest will be watched with interest by the public, for they will have an opportunity of witnessing the skill of these highly trained pursuit pilots. This race will be run in exactly the same manner as the Detroit Air Mail trophy. It will be for a distance of 300 m., 100-12 m.p.h., and will be at least four laps of a 30 m. course. Planes will be sent away in a straight start and this event is scheduled to start at 1 p.m., Saturday, Oct. 4.

It is the desire of the promoters of this race to make it a contest for high speed planes.

The starting speed shall be calculated from the maximum  $\bar{v}$ , obtained on the model. No corrections such as speed ratio, aspect ratio, lift, etc., will be allowed.

In view of the possibility of widely varying results which may be obtained in the different wind speeds, it is proposed that the results of tests obtained in different wind speeds, if it is required, will be used to test under uniform conditions at a speed of 75 m.p.h. in the wind tunnel, which in this case is the tunnel at the Massachusetts Institute of Technology, at Boston. In order not to practice airplanes which may exceed the starting speed slightly by having them completely turned around, the starting speed will be increased by 10 per cent.

15. After the airplane has been weighed in accordance with these regulations, and checked against the model characteristics submitted, the theoretical starting speed shall be found to a excess of 70 m.p.h. The airplane will be preflown in the excess of 70 m.p.h. for 4 m. The first mile will be at the starting speed of 70 m.p.h. The second mile will be at the preflown starting speed of 75 m.p.h. for 10 per cent increase by time.

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The Blériot, piloted by Bubnitz, was fitted with a Blaizehouse motor. On July 27 the user started in very thick weather. The Blériot returned to the Fox River under power, having been unable to get away from the ground. On the return trip it reached Neway-Heilbrunn, but there trouble with the gasoline system forced it down and repairs were not made soon enough to enable the pilot to reach the first control within the time limit set. Thus the Blériot was eliminated from the race.

The Cessna was forced down by the fire at Elkhorn, and the Farness landed at the same point due to a leak in the oil connection. Both aircraft were parked on the field all day at Cleveland-Firestone, the fuel being off. The next day the Farness was over Milwaukee and Cudahay, after shadowing some 1,200 ft. found that he could not get through the fog so he returned to the airfield and is landing broke a wheel. Make-shift repairs were made to the plane and it was able to take off again the next day. However, a break in the oil connection was discovered and the engine quit while attempting to take off again the plane had to land.

Breuker on the Farness was therefore left alone to cover the rest of the course. The task has down to the south of Elkhorn and back to Paris by way of Bremerton. He finally reached Paris on Aug. 10, going as elapsed time of fifteen days and a flying time of 28 hr. 50 min.

The survival of the Farness and its final victory is not a point of pride. However, it is due to both pilot's skill and persistence. Breuker finally broke the world's endurance record on a 640 hr. Farness-Detroit flight under most adverse conditions. The weather almost throughout the Tour de France was bad and Breuker flew through fog that turned back the other competitors. At times the visibility was so low that he preferred to fly under telegraph wires rather than lose sight of the ground. The organization of the Farness Farness-Detroit flight was done through the efforts of the pilot through a series of oil companies he received revenue and help from a place which was far from the Farness factory with the necessary parts. The plane itself is on a track type, being smaller in the machine which was the "Point Farness" plane last year. The Farness "Mousquet" is a larger one monoplane with a liquid exhaust forced from the pipe which is very large, brave the weather but goes to the limit of the engine's power.

The French announcement given in connection with the race says that the disappointing results were in part due to the bad weather which generated losses and during the contest, also points out that the monoplane drivers did not have the operating experience to have their planes ready on time. However, that the regulations were too severe and too strict is evident, as the contestants at present seem to be that fundamentally the regulations were too strict and that next year the contestants will profit by this year's experience.

## The Use of Wind in Flying

The great seven hour flight Lieutenant Thorst made in Hodson Bay September left no doubt in the minds of the world that wind could be utilized as an auxiliary in ordinary flying. It will be remembered that Thorst using a B-6110 with 129 L-Rhône motor started out by flying a soaring turn, where a user might be held for monoplane machines. As he flew over the hills he found that he had to turn and glided out the soaring current, circular ate the wind so as to return close to the edge of the cliff. It was then that he tried to hold his motor completely and motion his altitude.

Recently Berthot using the Bourdillon light plane is reported to have said that the use of the force of the wind as an auxiliary to the motor was the best way to fly. He also said that when flying in the same direction as the wind, work is obtained in helping reach the destination it is helpful just to lay off the use of the wind as fuel for flight. If M. Berthot maintains that he utilized using currents as auxiliary to his motor to maintain altitude he would look further into the situation. As there were no extended fields or ridges along the line of flight dynamic soaring in upward deflected

wind is out of the question. The only other wind force along which we have any definite information is that due to the thermodynamics of the air masses above the ground. The rate of movement of these air masses is a free a second and the most favorable conditions. Over cross country stretches a velocity reaches 15 ft. per second. Even this would save considerable fuel if it were constant. Rising currents are, however, always accompanied by descending currents and most pilots with a large monoplane experience would dash, that they can park, and then calculate the most rapid. Except for these a definite minimum is required for deflection of wind or a very large area of heated air is extremely difficult if the wind often much constant for general cross country flying.

In an attempt to test the correctness of these results can and also for the purpose of determining a location for using wind as an auxiliary, Charles E. Clegg, a member of the JN-4H and the man mentioned to 3,000 ft. Two of the flights are significant. The tests were made by E. Clegg under the auspices and from the field of the Aero Club of Illinois.

Clegg, II., on the Fox River has a high ridge and the river flows along the ridge. Therefore, the wind at the ridge would be the same as the river. The ridge is 300 ft. high. The wind was at 10 degrees to the ridge and 35 mi. per hour. The hill is 100 ft. high. This was reported at 300 ft., 300 ft., 300 ft. No effect whatever was felt until in a last attempt the user chose the bottom by 20 ft. At this altitude a short turn was made and when ground distance, the application of the motor was an instant. Suddenly, it was observed that the plane was in a narrow turn that the whole machine was not within at the same time.

The other flight was over the sand dunes at the southern end of Lake Michigan. A test was made as follows to determine the maximum power for horizontal flight at 10 degrees to the ridge. The ridge was 300 ft. high. The ridge was at the ridge where the gulls were seen to the dunes. There was no effect whatever at altitudes under 200 ft. but once under this height it was possible to throttle down 50 rpm more and still maintain altitude. Over the sandbank I turned and circled slowly but was unable to detect the slightest rising effect. In this way with the engine at 1000 rpm and the motor off to Milwaukee City and back, a distance of 100 miles, the gasoline consumption was very low for a 1040.

The searching out of rising currents is certainly useful for determining possible terms for survival on soaring flights. It may also be that much will be learned in regard to soaring greater economy of motor operation.

## Reversion to Pioneer Types

Editor, Aviation:

A return of conservatism. American light plane development, especially among the amateur builders, seems to be a surprising element of reversion to machine strongly reminiscent of pioneer types. The extremely low-speed monoplane fuselage and power plant installations all reveal use very strongly of such early developments as the Santos-Dumont "Biplane" and the somewhat later Morane and the "Gotha" a "pioneer" in light plane development, which it worth mentioning.

The problem confronting the light plane builder is very similar to that which our power aviation attached. There is the same necessity for the adaptation of sufficiently rated power plants, and the achievement of unusually light weight supporting structures. Some of the failures of the English biplane meeting short the responsibility of adherence to the "old" type of aircraft. In this connection, an analysis of the composition of conditions indicates the necessity of a distinct light plane type.

As an therefore advancing the idea that modern construction methods, combined with some of the elements of existing pioneer types may prove the way toward a light plane type.

Robertson Ware

# AIRPORTS AND AIRWAYS

## Long Island News

Every Jones of the Curtis Exhibition Co. of Glendale City, is flying up on Griswold in very trying fashion for the Ontario-Beaumont State. By removing the outer wings and shortening the span of the lower wing, a single bay machine has been prepared which looks very spiffy. \*

J. H. Howard, pilot of the Fokker plane, has fixed himself up in Canada that looks like a real ship. It is fitted with a Curtis 90-hp motor and the span of the lower wing has been increased to 40 ft. The machine has been rebuilt with the cockpit moved to the front in a single bay aircraft with a 100-hp motor. The wings were parrot wing and the tail was of all steel giving the machine the appearance of being set up for an exhibition. \*

Arthur L. Cameron formerly with the Aeromarine Airways now recently was with the Curtis Co. at Atlantic City, has now taken out a new Griswold and Jimmy which he will pilot for the Fairview Airplane Co.

W. L. Thomas is secretary and treasurer of this company, and W. E. Haskins is the general manager. They will do some photography and passengers carrying around the Bellmore to Water Gap, Penna. \*

E. B. Collier of the Biplaneers has prepared three his monoplane aircraft and is advertising the "Iron Horse" over New York for the Fox Film Co.

Capt. E. D. Himes is working "Body Shop" over the Canadian Fair at Toronto. The rest of the staff including Harry Savage, Captain Langham and Morris, Tax-Cab, Bandy and McMillan are working with colored smoke for the "Body Shop" over the Canadian Exhibition in England. \*

The serial monoplane flying boat which Moses Booth and Thornton are building for Howard Vandall is completed and is being served in Fox Washington for insurance. \*

These persons were listed on Aug. 24, when a lightning aircraft piloted by William St. John and carrying two passengers, open into the ground out of control, exploded at Newfield, L. I. The dead included Paul Sharp, Charles Newfield of Newfield, and his ten-year-old son, Herbert.

Sharp was returning from a short lightning flight, when his ship suddenly went into a spin and continued spinning down to an altitude of 100 ft. The pilot seemed to be trying to recover from a spin when the ship suddenly fell into open air and exploded, according to Harry. It was a pilot of long experience, and nothing appears to have been wrong with the ship. It is believed that the pilot, who used to have been sufficient from a high altitude pressure, lost consciousness in the air and remained it too late to bring the ship out of the spin.

Cleveland News

By C. C. Collier:

H. J. Karsay and associates are flying for Household Aircraft Photo Co. Paul Herold P. Little and Eddie Crotty have won 1st place at Toledo's Harbor Development for Toledo Chamber of Commerce, in connection with the St. Lawrence and waterway project. In all, 300 pictures were taken, including the Wally-Overland plant and other factories and plants in and around Toledo. Madison Gold Laboratories, Marion, Ohio, and South Bedford and some of the rest area developments, photographed. Before, the Toledo Photo Co. was taken from 16,000 ft. on a clear day, shooting Cleveland and Lake Erie as backgrounds—a remarkably fine picture.

Mr. Karsay and associates are now making a complete

series map of Cuyahoga County and vicinity for the Cleveland Union Terminal Co. \*

The Cleveland Wright Aviation Co., C. A. Wright, president, has opened a new commercial flying field at Chester Woods, known as Woodsfield, at the south eastern edge of Cleveland. L. A. Danvers, Chief Pilot for the Company, states that over 400 passengers have been carried since the opening of the field four weeks ago.

Operating from the field are Maxine Schneider and Parker and M. Kline who have been very busy passengers-carrying on Sundays and evenings. The other 90 per cent of the work that has been done against the retention of passengers, and therefore devote their entire time to commercial and private.

It is strange to consider the other situation that surrounds a pilot five days a week as he stands beside his ship displaying the slogan "Hicks, 60-hp." Compared to being the last of the "Skimmers" who have nothing but a headwind about a small northern. The last two weeks he and his family, growing old together, while the aeronauts on the radio, have been able to spend their time flying and the radio spares who has provided for a moment no the plane shows his contempt for all airplanes after his usual flight. The "Hicks" is a "Chop" and straightforward departure. Yet, still the hopeful pilot begins in an amateur's spirit contemplation working in the cockpit of the plane 2 with cockpit fair before it. Once at last the aeronauts, the radio, the compass, kindly awaiting with smile fields the lonely winter of the variable. Miles less from the amateur's self-righteous pride of wingman, in sight's oblivion mercifully punishes him.

The moral, if any, of this is "Get a job in a store and stay there." \*

Pilot Carlson steadily took for his first aeronauts ride a spry old gentleman of 92 years' growth—or at least 72 years' growth and 20 years' "skimming" old, grandfather, doctored on roses. It's just a question of when they stop—when and start skimming.

It seems to me that the thought has passed upwards out this field. The first aeronauts that the author is eight with the bases, carrying the lighted torch and the 100 ft. of that sort of thing. The second ride says it is a clear case of mortal decay, and that for a man of 92 ft. is all power that he has reached the tattered stage of utter worthiness.

The Kindred Flying Circus, when Cleveland flies well, they have no elephants, but I shall carry water for the pines and get on free.

## Night Aerial Advertising

The Night Aerial Advertising Corp. of New York, has opened from the Fox Film Corp. a contract for advertising "The Iron Horse," a new musical film drama which opened at the Lyric Theatre, New York, Aug. 28.

An electric sign bearing the legend "The Iron Horse" is letter 10 ft. high, attached to the lower wings of a biplane. The original contract called for 10,000 ft. of flight, beginning Sept. 16, at a price stated to be \$10,000 per day. During the course of the aerial advertising, the contract has been increased to twenty flights, at other large cities and middle western cities. The flights began on the night of Aug. 16 and will continue until Oct. 1. The flights have been seen by thousands of people in and around New York and other major cities, resulting in a large amount of newspaper publicity.

Albert Rines, formerly a lieutenant in the U. S. Air Service, is the pilot at the night advertising place.







The new VOUGHT UO-1 Spotting Seaplanes are the exclusive Aircraft Equipment of the Battleships and new Scout Cruisers of the U. S. Navy's Atlantic and Pacific Fleets

## Chance Vought Corporation

Borden and Review Avenues  
Long Island City, New York

Announcing  
*"The Story of Flying"*

### THE AIRCRAFT YEAR BOOK 1924

Published by  
THE AERONAUTICAL CHAMBER OF COMMERCE OF AMERICA, Inc.

Last year was the most significant year in aviation. It marked the coming of the age of aviation. It saw the definite beginning of the change of flying from military to commercial. It saw the launching to the United States of 35 out of 42 world records.

#### The Aircraft Year Book 1924 will have

150 pages of text covering aeronautics, military and commercial, in every country of the world.  
40 pages of aerofoil and engine diagrams showing technical progress during 1923.  
50 pages of photographs of important or unusual events in illustrating the progress of aerial photography.  
100 pages of reference data, tables, figures on covering commercial and governmental aviation throughout the world.

Every person interested commercially or paternally should have a copy.  
Every member of the National Aeronautic Association should have a copy as his reference book. The volume will contain much information of vital interest to the N.A.A.  
Every member of the Army, Navy and Postal Air Services needs a copy.  
As the volume is limited, your order should be placed at once.

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225 Fourth Avenue, New York, N. Y.

Faculted price \$10.25 (check, money order, draft) Please send me prepaid (U. S.) one copy 1924 Aircraft Year Book.

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Address \_\_\_\_\_

September 15, 1924

## A Suggested National Air Policy

That a National Aviation Policy is needed by the United States is obvious. To get such a policy in concrete form AVIATION requested several thoughtful friends of aeronautical progress to make suggestive and constructive recommendations. Some of them are given below and will be printed each week with additions, annotations and such other changes as appear to be helpful toward the formulation of a sound national air policy. Readers of AVIATION and others can render no greater service to the cause of aeronautical progress than contributing their comments and suggestions.

### GOVERNMENTAL.

A continuing program of aircraft development both governmental and commercial. A citizen, charged with championing a national air policy, is needed in the Government. \*Civilian Aircraft committee in the House and Senate to hold aircraft hearings where citizens as well as government officials can express their opinion. \*Prepared of laws.

A detailed aircraft budget for all Governmental Departments, and an annual statement of all expenditures. An experienced staff of flying officers at the head of all governmental air defense services.

Coordination of all procurement and experimental aircraft work of the government under one agency. \*Co-ordination of the aeronautic experimental development of the government leaving procurement to the various bureaus themselves.

Limitation of government manufacture to repair of aircraft and specialized work that cannot be done by private firms. \*No inspection or experimental construction.

The elimination of the duplication of aerial functions and facilities by government departments. A country wide Air Mail system of truck lines connecting the principal cities of the country. \*Refinement in air mail rates.

Establishment of a National Airway System through cooperation of the Federal Government with States and Cities. \*A landing field in every large city.

A national aeronautic law that will regulate aviation, administered by practical pilots and experienced aeronautical engineers. \*and Federal air police.

Membership of the United States in the International Convention for Air Navigation.

\*Increased governmental appropriation for aerial development.

\*Encouragement of aviation other than subsidy.

### COMMERCIAL AIRCRAFT OPERATION.

Creation of commercial air lines by private enterprise or government subsidy.

Encouragement of participation by private companies in aircraft races and competitions.

Encouragement of the training of pilots by civilian schools.

Creating an Esprit de Corps among flying men all over the country by frequent gatherings at aviation meets.

\*Encouragement of safe and sane flying.

### INDUSTRIAL AIRCRAFT CONSTRUCTION.

Recognizing that a sound aeronautical industry is a prime necessity of our National Defense.

An active industrial association that will coordinate the aircraft industry and defend it from attack.

Encouragement of the design of new types of aircraft by manufacturers by allowing them to retain their proprietary rights.

Cooperation of manufacturing firms on specialized types of army and navy aircraft. \*When production demands are being.

Encouragement of research by constructors, universities and other agencies as well as by the government.

Encouragement of an annual design competition for commercial aircraft.

### CIVILIAN.

A national aeronautic organization composed of public spirited citizens that will take a strong position of leadership on national aeronautic policy. \*Unification of all aeronautic organizations into one national association with chapters in all cities and towns.

An Annual Aviation Week during which the country will think of aerial progress. \*52 such weeks.

The formation of local aero clubs by them for the purpose of stimulating flying in all localities.

Encouraging the public to fly and patronize the air mail and transport facilities.

\*Suggested changes.

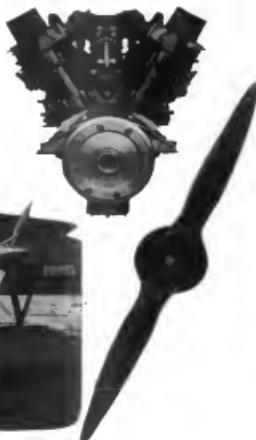






# Curtiss

*Speed with Safety*



## LIEUT. MAUGHAN SUCCEEDED WITH THIS COMBINATION

When the Army Air Service decided to demonstrate to the world the mobility of American aircraft, they chose a Curtiss product.

Lieutenant Maughan's recent flight from New York to San Francisco between the hours of dawn and dusk was accomplished in a Curtiss designed and built Pursuit plane equipped with a Curtiss D-12 motor and a Curtiss-Reed one-piece duralumin propeller.

This threefold combination is indeed hard to beat, as each one preeminently leads its field. The plane of Curtiss design includes all the essentials necessary for high speed racing and high performance military aircraft, among which are:

Extreme maneuverability with comfort and visibility to the pilot at all times;

Multispar cellular wings, with covering of spruce plankings instead of fabric—shrapnel proof—no cloth covering to tear off;

Steel tubular fuselage with a readily detachable engine mounting;

Split axle type of landing chassis, in which shocks are

absorbed by rubber discs acting in compression. This chassis, although but a few months old, has already been adopted as the standard type.

Quickly detachable wing or cellular radiators eliminating resistance heretofore required for cooling;

Oil temperature regulator, which permits instantaneous starting, even in the coldest weather, and then maintains the proper temperature of the oil while in flight.

The Curtiss D-12 motor, in addition to holding all the speed records of the world, now has to its credit Lieutenant Maughan's achievement. On account of the small frontal area of the D-12 for the first time the size of the pilot rather than the engine controls the size of the fuselage.

The Curtiss-Reed one-piece duralumin propeller, the safest and most efficient propeller ever tested, is unaffected by hail or rain, tall grass, small particles, age or climatic conditions. It too has done its part in winning these high speed and endurance tests.

The Curtiss Pursuit as a fighting unit has no competitor in the world. It has set new standards for plane, motor, and propeller.

On September 3rd Lieutenant R. C. Moffatt flew from Boston to New York in 58 minutes!

**CURTISS AEROPLANE & MOTOR COMPANY, Inc.**  
GARDEN CITY, L. I.

BUFFALO, N. Y.

